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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

AP/1764

Applicants: Roger R. Lesieur et al

Docket No.: C-2373 Cont.

Serial No.: 10/042,056

Group: 1764

Filed: January 10, 2002

Examiner: N. Norton

For: "Method for Desulfurizing Gasoline or Diesel Fuel for Use in a Fuel Cell Power Plant"

**REPLY BRIEF**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

This is a Reply Brief which addresses certain points and allegations put forth in the Examiner's Answer dated March 16, 2004.

A) In part (2) of the Answer, the Examiner states that the brief does not contain a statement identifying related appeals and interferences.

This is not true. See part (2) of the appeal brief.

B) In part (7) of the Answer, the Examiner states that claims 9, 10 and 11 stand or fall "by itself". It is not clear what "by itself" means. The Examiner then goes on to state that: "appellant's brief doe not include a statement that this grouping of claims does not stand or fall together and reasons in support thereof.".

This statement is not true. See part (7) of the brief wherein the grouping of the claims clearly states which claims stand or fall together, and which claims stand or fall by themselves. In the rejections section of the brief, the rejections of groups of claims and individual claims have been clearly set forth. Arguments against the rejections of groups of claims and individual claims have also be put forth. This is what is necessary to support an elected grouping of claims by an appellant. No other "reasons in support thereof" are necessary.

C) On page 4 of the Answer the Examiner sums up the shortcomings of the Setzer et al reference. This summation discusses what claim limitations the reference "is silent about", and what claim limitations the reference "does not disclose". We presume that both of the quoted phrases mean the same thing, i.e., that the reference in question simply does not

suggest the desirability or the feasibility of the four limitations in question which are specified in the claims in question. These limitations are: a) the claimed amount of sulfur in the process effluent; b) the claimed bed operating temperature range of 300-450°F; c) the claimed limitation that the fuel stream should contain recirculated a selective oxidizer recycle of hydrogen and water; and d) processing the specific gaseous feed stocks claimed.

The Answer addresses these admitted shortcomings of Setzer et al as follows:

- 1) So says the Examiner, Setzer et al enables one to desulfurize a gaseous feed stock “to any degree required to produce a suitable fuel cell feed” including that claimed in the subject patent application. Setzer et al itself implies that it cannot produce a low sulfur effluent which has less than 20 ppm sulfur, never mind “any degree” of desulfurization. The Examiner has no factual basis for alleging that Setzer et al can desulfurize a fuel stream to a level that Setzer et al itself does not ascribe to. Thus the Examiner’s reasons for proffering this grounds for rejection are nothing more than pure speculation, unsupported by the reference that the Examiner is relying on;
- 2) So says the Examiner, the upper temperature in the claimed temperature range, 450°F, is “close enough” to the lower end of the operative Setzer et al temperature range, 500°F, so that one skilled in the art would have expected it to have the same conversion properties including sulfur removal properties. Once again, this conclusionary statement put forth by the Examiner has absolutely no factual basis. If the Examiner were correct, then why does Setzer et al set forth a lowest operative temperature of 500°F? The answer is simple, and it’s because Setzer et al did not suggest that it expected lower temperatures to have “the same conversion properties”. The Examiner is jumping to a conclusion here that is not supported by the cited reference or any other facts. Furthermore, the Examiner goes on to state that: “Applicants have not shown anything unexpected with respect to the claimed temperatures.”. The need for “unexpected results” has been thoroughly briefed in the appeal brief, clearly showing that they are not relevant, and are, indeed, irrelevant to the question of patentability;
- 3) So says the Examiner, it would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize water obtained “from any source” in Setzer et al, including a recycle from a selective oxidizer output, because the water composition is the same regardless of the source. This allegation is not based on any facts or supported by the reference. The claims in question clearly identify the composition of selective oxidizer recycle as a “mixture of hydrogen and water”. Thus, the composition of selective oxidizer recycle is not the same as water “from any source”. The statement by the Examiner that: “It

is within the level of ordinary skill in the art to recycle in a known process." is pointless and is self serving; and

4) So says the Examiner, it would have been obvious to use any feed applicable to a fuel cell according to the process of Setzer et al including the claimed gaseous feeds because the reference does not limit the specific hydrocarbon "feeds". The Examiner goes on to once again point to the "unexpected results" standard, which doesn't exist as a matter of law. In fact, the reference only refers to JP-4 fuel, which is jet fuel, and is not just any fuel.

The above-identified four grounds for rejection of Claims 1-8 and 20-25 put forth by the Examiner are based on nothing more than a combination of Examiner conjectures as to where to come up with the "silent" or missing claim limitations that are not suggested by Setzer et al, and are also based on an "unexpected result" standard that does not exist. The grounds put forth in the Answer in support of the rejections of Claims 1-8 and 20-25 are thus clearly flawed and non-statutory.

On page 7, first full paragraph, of the Answer, the Examiner, in discussing Setzer et al, refers to degrees C instead of degrees F. We presume that this is a typographical error and will treat it as such.

A brief comment regarding the Examiner's assessment of what the Alexander et al reference suggests. The Examiner, on page 8, second full paragraph, of the Answer, indicates that he is relying on only certain portions of Alexander et al, and not on the entire reference in the §103 rejection. Reliance on only a part of a reference and ignoring the contents of the reference as a whole is improper. The Examiner must consider the contents of the reference as a whole, and in this case the Examiner is ignoring the contents of the third full paragraph in Col. 1 (lines 26-33) of Alexander et al, which actually teaches away from the use of an organic additive in gasoline.

Respectfully submitted,



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Date: 4-18-04